

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 25-53 are pending in the present application. Claims 1-24 are canceled and Claims 25-53 are added by the present amendment.

Claims 25-45 and 48-51 find support in the claims as originally filed and Claims 46, 47, 52 and 53 find support in the originally filed specification, at least at page 1, lines 11-23. Thus, it is believed no new matter is added.

The outstanding Office Action objected to the specification. Claims 1-21 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,591,260 to Schwarzhoff et al. (herein "Schwarzhoff"); Claims 22-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Schwarzhoff in view of U.S. Patent No. 6,792,466 to Saulpaugh et al. (herein "Saulpaugh"); and Claims 22-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Schwarzhoff in view of U.S. Publication No. 2002/0069222 to McNeely.

Applicant and Applicant's representatives gratefully acknowledge the courtesy of a personal interview with Examiner Zhong and Supervisory Examiner Lin on January 3, 2004. During the interview, differences between the present invention and the references cited in the outstanding Office Action were discussed. Further, claim amendments to more clearly indicate the claimed features were discussed, and the Examiners indicated claims with those amendments would likely overcome the references cited in the outstanding Office Action. Claim amendments and comments discussed during the interview are reiterated below.

Regarding the objection to the specification, the specification is amended to include recommended section headings and to remove hyperlinks, as suggested in the outstanding Office Action. Further, Applicant respectfully traverses the assertion in the Office Action that there is a requirement to "number every line of every claim, with each claim beginning

with line 1.”¹ However, Applicant will modify the specification if the source of this requirement is subsequently identified. Accordingly, it is respectfully requested the objection to the specification be withdrawn.

Applicant respectfully traverse the rejection of Claims 1-21 under 35 U.S.C. § 103(a) as unpatentable over Schwarzhoff with respect to corresponding new Claims 25-45.

Claim 25 is directed to a communication system that includes, *inter alia*, automation equipment configured to execute at least one automation program and at least one web service. The automation program is configured to provide an automation function and the web service is configured to provide remote access to the automation function. Remote equipment is configured to communicate with the automation equipment over an IP network, and a computer application is configured to execute on the remote equipment and to communicate with the web service to provide a remote automation function to the remote equipment. The remote automation function is based on at least one service description document configured to describe capabilities of the web service using a WSDL (Web Services Description Language) language, and the remote automation function includes at least one of monitoring, display, control, configuration, and programming of the automation program on the automation equipment.

In a non-limiting example, Applicant’s Figure 1 shows automation equipment 10 that executes automation program 20 that offer automation functions. The automation equipment 10 also includes web service 21 that provides a remote automation function to remote equipment 30/40. The web service 21 receives and sends messages 53 according to a communication protocol based on the WSDL bindings described in service description document 61. Thus, the service description document 61, which is accessible from the remote equipment 30/40 over the IP network 50, allows the remote equipment 30/40 to know

¹ Office Action at page 2, lines 3-4.

what services are available from the automation equipment and specifies a set of requests and protocols to be used to invoke the request to the automation equipment 10, for each automation function.²

As discussed during the interview, Schwarzoff does not teach or suggest a remote automation function that is based on a service description document configured to describe the capabilities of a web service, and Schwarzoff does not teach or suggest a remote automation function that includes monitoring, display, control, configuration, or programming of an automation function on automation equipment. Applicant respectfully notes that Schwarzoff describes the construction and exchange of electronic documents between the servers of trading partners to simplify the task of mapping between the different formats used in private data sets of each trading partner.³ Schwarzoff indicates that the electronic documents are written in XML which allows the document writer to define the tags which are used to express document instances.⁴ Further, the XML document instances are interpreted by the user of schemas which are cited in the document instances, and the schema classifies a document type.⁵ In other words, the electronic documents of Schwarzoff include XML to provide a definition of the format of the data contained within that document, to thereby address the problem of trading partners having different private data formats.

However, Schwarzoff does not indicate any remote automation function, or any function at all, that is based on a service description document, but only indicates XML data that describes the format of data in an electronic document. Thus, Applicant respectfully submits that Schwarzoff does not teach or suggest a “remote automation function being based on at least one service description document,” as recited in independent Claim 25 and as similarly recited in independent Claim 48.

² Specification at page 11, lines 25-29.

³ Schwarzoff at column 1, lines 23-47.

⁴ Schwarzoff at column 2, lines 13-15.

⁵ Schwarzoff at column 2, lines 21-27.

Further, Schwarzoff does not indicate any remote automation function, or any function at all, that includes monitoring, display, control, configuration, or programming of an automation function. Thus, Applicant respectfully submits that Schwarzoff also does not teach or suggest a "remote automation function including at least one of monitoring, display, control, configuration, and programming of the automation function provided by the automation program on the automation equipment using the remote access of the web service," as recited in independent Claim 25 and as similarly recited in independent Claim 48.

Accordingly, Applicant respectfully submits that independent Claims 25 and 48, and claims depending therefrom, patentably define over Schwarzoff.


Further, Applicant respectfully traverses the rejections of Claims 22-24 under 35 U.S.C. § 103(a) as unpatentable over Schwarzhoff in view of Saulpaugh or McNeely. Applicant submits that neither Saulpaugh nor McNeely supply the claimed features deficient in the disclosure of Schwarzoff.

Accordingly, Applicant respectfully submits that independent Claims 25 and 48, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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